

## **ABSTRACT OF THE DISCLOSURE**

Disclosed is a method for manufacturing a conductive organic thin film device. An air-bridge type of an upper electrode is formed over a lower electrode by using a sacrificial layer and then a gap having a thickness of several nano meter is formed in a part at which the upper electrode and the lower electrode intersect by removing the sacrificial layer. The conductive organic molecules are uniformly adsorbed between the upper electrode and the lower electrode of the nano gap. Adsorption extent of the conductive organic molecules is confirmed by observing a current flowing through the upper and lower electrodes when the conductive organic molecules are adsorbed. Thus, reproducibility of a manufacturing process is improved and mass production is facilitated by adoption of a standardized process.